Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at http://about.jstor.org/participate-jstor/individuals/early-journal-content.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

season in the tetrad stage, and mature early in January. Various adaptations to a dry season are noted. Hygrophilous species are unable to recover from desiccation, but both thallus and spores of xerophilous ones grow promptly even after complete artificial desiccation. The remaining studies are concerned with the germination of spores of various species, and the brief life of the green or thin-walled spores, as contrasted with those of certain xerophilous species which are known to be viable after two years.—C. R. B.

Florida strangling figs.—BESSEY[8] has studied the germination and habits of the two native figs of Florida (*F. aurea* and *F. populnea*). In dense hammocks *F. aurea* begins only as an epiphyte, but eventually all trace of this habit is lost; while in open places it is often independent from the first. This seems to be explained by the fact that the seeds germinate only in the light, and experiments were performed to prove this peculiar habit. Following germination, the usual gradual "strangling" of the host plant occurs. Roots are sent down along the host plant and established in the ground, and finally by anastomosing and growth they completely incase the host. Both species have two or more crops of fruit each year, and are pollinated by different species of Blastophaga. Both kinds of flowers occur in the same receptacle, and the differentiation of the flowers is not so extreme as in the commercial fig.—J. M. C.

Morphology of Asimina triloba.—HERMS[9] has discovered the following facts in a study of *Asimina triloba:* the ovule passes the winter in a stage preceding the differentiation of the archesporial cell; the megaspore tetrad is occasionally tetrahedral instead of linear; the embryo sac becomes remarkably elongated; the polar nuclei remain in contact for three weeks or more; the antipodals are very ephemeral; the first segmentation of the egg does not occur for three or four weeks after fertilization; the first division of the endosperm nucleus is accompanied by transverse wall formation, dividing the linear sac into two equal chambers, the transverse divisions continuing until the sac contains a linear series of about twelve cells, when longitudinal division begins at the antipodal end; the embryo is very small and little organized even in the seed.—J. M. C.

Light and germination of fern spores.—LIFE[10] has been experimenting with the effect of light of different intensities upon the germination of fern spores. The spores of *Alsophila australis* germinated about a year after collection, but the spores of other ferns germinated as soon as they were dry. Under ordinary conditions the spores do not germinate in darkness; and at higher temperature than ordinary room temperature the spores of Alsophila and Aneimia could not be induced to germinate in darkness. Germination was best in light of medium intensity (about 0.075 sunlight). Weaker light induced filamentous or ribbon-like prothallia, while strong light induced heart-shaped prothallia. Strong light (intensity 0.3) cause the production of only archegonia in Alsophila, while in the other ferns both sex organs were produced. Weak light inhibits the production of archegonia and favors the production of antheridia.—J. M. C.

---

[8] BESSEY, ERNST A., The Florida strangling figs. Rept. Mo. Bot. Garden **1908**: 25:33. *pls. 1–9.*

[9] HERMS, WILLIAM B., Contribution to the life history of *Asimina triloba.* Ohio Naturalist **8**:211–217. *pls. 15, 16.* 1907.

[10] LIFE, A. C., Effect of light upon the germination of spores and the gametophyte of ferns. Ann. Rep. Mo. Bot. Gardens **19**:109–122. 1907.

Poisonous action of salts.—BENECKE[11] mingles with a strong polemic against LOEW an account of experiments which go to show that various salts collectively harmless are individually poisonous to Spirogyra, but have their toxic action neutralized by calcium salts. The chlorids, nitrates, sulfates, and phosphates of sodium, potassium, magnesium, and iron are more or less poisonous. The cations Fe and Mg are more poisonous than K, itself more poisonous than Na; of the anions named the phosphate, sulfate, and nitrate are more poisonous than chlorion. The toxicity of both anions and cations may be removed or diminished by the addition of Ca ions.

These results are essentially those obtained by OSTERHOUT and DUGGAR, the chief difference being that BENECKE ascribes to Ca a special antitoxic property toward other salts.—C. R. B.

Respiration and pollination.—When the gynaecium begins its second phase of development, after pollination, the respiratory activity might be expected to differ from that of an unpollinated one, but no comparative determinations seem to have been made. This has now been done by Miss JEAN WHITE,[12] using the Bonnier-Mangin apparatus for gas analysis. With due precautions she finds this apparatus, as modified by AUBERT, entirely satisfactory. "The net result of the whole work is to show that pollination not only produces a rapid rise of the respiratory activity, but also affects the respiratory quotient," which is usually less than unity and larger in the pollinated than in the unpollinated gynaecium. The numerical data show such extraordinary differences, under presumably like conditions, as to raise serious question regarding the value of the observations. —C. R. B.

Embryology of Oxalis.—HAMMOND[13] has investigated *O. corniculata* and records that the single hypodermal archesporial cell does not give rise to any parietal tissue, but functions directly as the megaspore mother cell, which he calls the megaspore; that the antipodals disappear soon after fertilization; and that the basal cells of the suspensor form a very active haustorium.—J. M. C.

---

[11] BENECKE, W., Ueber die Giftwirkung verschiedener Salze auf Spirogyra, und ihre Entgiftung durch Calciumsalze. Ber. Deutsch. Bot. Gesells. **25**:322–337. 1907.

[12] WHITE, JEAN, The influence of pollination on the respiratory activity of the gynaecium. Annals of Botany **21**:487–499. 1907.

[13] HAMMOND, HOWARD S., The embryology of *Oxalis corniculata*. Ohio Nat. **8**:261–264. *pl. 18*. 1908.